



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0594; Directorate Identifier 2012-NM-019-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

**SUMMARY:** We are revising an earlier proposed airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes. That NPRM proposed to require an inspection to determine if certain rudder feel trim units (RFTUs) are installed, an operational check for signs of seizure of affected parts, repetitive lubrication for certain RFTUs, and replacement of the RFTU if necessary. Installing replaced RFTUs with conformal bushings would terminate the repetitive lubrication requirements. That NPRM was prompted by reports of movement of the rudder pedals being impeded due to corrosion of the trunnion shaft of the RFTU. This action revises that NPRM by reducing compliance times, increasing compliance costs, expanding affected parts to include additional serial numbers and include those parts with a suffix 'A,' and adding the condition of rough movement to the operational check. We are proposing this AD to detect and correct any sign of rough movement or seizure of the trunnion shaft and its bushing, which could cause a

rudder control jam or a large and rapid alternating rudder input leading to a structural failure of the vertical fin. Since these actions impose an additional burden over that proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0594; Directorate Identifier 2012-NM-019-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We proposed to amend 14 CFR part 39 with an earlier NPRM for the specified products, which was published in the Federal Register on June 12, 2012 (77 FR 34874). That earlier NPRM proposed to require actions intended to address the unsafe condition for certain Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes.

Since that NPRM (77 FR 34874, June 12, 2012) was issued, we have determined that a reduction to the compliance times is needed in order to address the identified specified unsafe condition. We are reducing the compliance times for the

inspection in paragraph (g) of this supplemental NPRM from within 600 flight hours or six months, whichever occurs first, to within 200 flight hours or two months, whichever occurs first after the effective date of this AD. We are reducing the compliance time for the replacement specified in paragraph (h) of this supplemental NPRM from within 6,000 flight hours to within 5,000 flight hours or 3 years, whichever occurs first. We have also determined that it is necessary to increase the costs of compliance, expand the affected parts, and revise the operational check specified in the NPRM. The affected parts for the action specified in paragraphs (g)(1) and (g)(2) have been expanded in this supplemental NPRM to include additional serial numbers (S/N) 0008 through 0509 inclusive, and to include those parts with suffix 'A.' Also, the operational check specified in paragraph (g)(2) of this supplemental NPRM now includes an additional condition of "any sign of rough movement."

Since the NPRM (77 FR 34874, June 12, 2012) was issued, Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-02R1, dated October 12, 2012 (referred to after this as Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products. The MCAI reduced compliance times, expanded the affected parts to include the new part serial numbers and parts with suffix 'A,' and added the condition of "rough movement" to the operational check. You may obtain further information by examining the MCAI in the AD docket.

### **Relevant Service Information**

Bombardier has issued Service Bulletin 84-27-60, dated July 12, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

### **Comments**

We gave the public the opportunity to comment on the NPRM (77 FR 34874, June 12, 2012). The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Allow Additional Replacement Units**

Horizon Air (Horizon) requested that we add units with suffix 'B,' in addition to units with suffix 'A,' to the RFTUs allowed as replacement parts in paragraphs (g), (h), and (i) of the NPRM (77 FR 34874, June 12, 2012). Horizon stated that Parker Aerospace, which manufactures RFTU part number (P/N) 399500-1007, has since issued Parker Aerospace Service Bulletin 399500-27-003, dated April 19, 2012, which introduced an additional modification for RFTU (S/Ns) 0009 through 0388 inclusive. Horizon noted RFTUs modified by that service bulletin are identified by a suffix 'B' to the unit serial number. Horizon stated the addition of units with suffix 'B' would allow operators that have taken actions to incorporate Parker Aerospace Service Bulletin 399500-27-003, dated April 19, 2012, suffix 'B' units into their fleet, to be in compliance with the NPRM and to keep operators from having to request an alternative means of compliance (AMOC) to keep suffix 'B' units in service once the final rule is issued.

We partially agree with the commenter. This supplemental NPRM does allow installation of units with suffix ‘B.’ However, as stated previously, units with suffix ‘A,’ are now affected parts and this supplemental NPRM would not allow installations of units with suffix ‘A.’ We have changed paragraphs (g), (h), and (i) of this supplemental NPRM to include the addition of units with suffix ‘B.’

**Request to Revise Paragraph (g)(2)(i) of the NPRM (77 FR 34874, June 12, 2012)**

Horizon requested that we revise paragraph (g)(2)(i) of the NPRM (77 FR 34874, June 12, 2012) to allow installing serviceable RFTUs and RFTUs having suffix ‘B.’ Horizon added that paragraph (g)(2)(i) of the NPRM requires “replacing the RFTU with a new RFTU.” Horizon stated that the word ‘new’ implies a zero-time unit that is new from the manufacturer, and that operators should not be required to purchase a new unit to meet the requirements of paragraph (g)(2)(i) of the NPRM when a serviceable RFTU outside the serial number range, or that has a serial number with a suffix ‘A,’ would address the unsafe condition. Horizon pointed out that requiring use of a new unit since it adds an additional financial cost that is unnecessary to address the unsafe condition.

We agree. We have revised paragraph (g)(2)(i) of this supplemental NPRM to specify replacing RFTUs with new or serviceable RFTUs, which includes those with suffix ‘B.’

### **FAA's Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Certain changes described above expand the scope of the earlier NPRM (77 FR 34874, June 12, 2012). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this proposed AD.

### **Costs of Compliance**

Based on the service information, we estimate that this proposed AD would affect about 83 products of U.S. registry. We also estimate that it would take about 5 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$0 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$35,275, or \$425 per product.



In addition, we estimate that any necessary follow-on actions would take about 17 work-hours and require parts costing \$0, for a cost of \$1,445 per product. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**Bombardier, Inc.:** Docket No. FAA-2012-0594; Directorate Identifier 2012-NM-019-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes; certificated in any category; serial numbers (S/N) 4001, 4003 and subsequent, equipped with rudder feel trim unit (RFTU) part number (P/N) 399500-1007.

**(d) Subject**

Air Transport Association (ATA) of America Code 27: Flight Controls.

**(e) Reason**

This AD was prompted by reports of movement of the rudder pedals being impeded due to corrosion of the trunnion shaft of the RFTU. We are issuing this AD to detect and correct any sign of rough movement or seizure of the trunnion shaft and its bushing, which could cause a rudder control jam or a large and rapid alternating rudder input leading to a structural failure of the vertical fin.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Inspection, Replacement, and Lubrication**

Within 200 flight hours or two months after the effective date of this AD whichever occurs first: Inspect the RFTU to determine whether the serial number is in the range from S/N 0008 through 0509 inclusive without a suffix 'B,' in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-60, dated July 12, 2012. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the RFTU can be conclusively determined from that review.

(1) If the RFTU's serial number is not in the range from S/N 0008 through 0509 inclusive, or if the serial number has a suffix 'B,' no further action is required for this paragraph.

(2) If the RFTU's serial number is in the range from (S/N) 0008 through 0509 inclusive, including those with a suffix 'A,' but not including those with suffix 'B': Before further flight, perform an operational check of the RFTU for any sign of rough movement or seizure of the trunnion or center shaft, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-60, dated July 12, 2012.

(i) If rough movement or seizure of the RFTU trunnion or center shaft is found: Before further flight, replace the RFTU with a new or serviceable RFTU, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-60, dated July 12, 2012.

(ii) If no rough movement or seizure of the RFTU trunnion or center shaft is found: Before further flight, lubricate the RFTU, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-60, dated July 12, 2012. Repeat the lubrication of the RFTU at intervals not to exceed 600 flight hours or 3 months, whichever occurs first, until the RFTU is replaced with a unit that has a serial number outside the affected range or a serial number with a suffix 'B.'

**(h) Replacement**

For airplanes having an RFTU identified in paragraph (g)(2) of this AD: Except as required by paragraph (g)(2)(i) of this AD, within 5,000 flight hours or 3 years after the effective date of this AD, whichever occurs first, replace all affected RFTUs with units that have a serial number outside the range from S/Ns 0008 through 0509 inclusive, or that have a serial number with a suffix 'B,' in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-60, dated July 12, 2012.

**(i) Parts Installation Prohibition**

As of the effective date of this AD, no person may install an RFTU P/N 399500-1007 with a serial number from (S/N) 0008 through 0509 inclusive, including serial numbers with suffix 'A,' on any airplane, except RFTUs that have a serial number with suffix 'B,' may be installed.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(k) Related Information**

(1) Refer to MCAI Canadian Airworthiness Directive CF-2012-02R1, dated October 12, 2012; and Bombardier Service Bulletin 84-27-60, dated July 12, 2012; for related information.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 28, 2013.

Ali Bahrami,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

**[FR Doc. 2013-05597 Filed 03/11/2013 at 8:45 am; Publication Date: 03/12/2013]**